

MISCELLANEOUS PHENOMENA.

BOTANICAL.—*Alabama*—Green Springs, in bloom, 10th, tulip tree, 25th, laurel. *California*—Alameda Co., 17th, the prospect of good crops is unusually favorable; one of the best growing springs ever known; haying has commenced; orchards are over-loaded with fruit, and the thinning out must be resorted to in order to prevent the trees from breaking down; vineyards promise to yield very abundantly. *Connecticut*—New London, in bloom, 30th, apple, currants, dandelion, 23rd, elm; budding, 20th, elm, horse-chestnut, 22nd, lilac, sugar maple, 23rd pear, wild cherry, birch, peach and hickory; leafing, 23rd, berberry bush; 6th, grass starting. *Dakota*—Pembina, 9th, commenced sowing wheat. *Delaware*—Middleton, 24th, there is every prospect for the largest peach crop ever grown in this section. New Castle, Co., 24th, prospects of an average peach crop. Kent Co., 24th, an enormous crop of peaches is anticipated. *Florida*—Milton, 15th, plenty of new irish potatoes in market. *Georgia*—Harris Co., 18th., all crops are doing well. Newton Co., 18th, cotton planting is progressing quite rapidly. Baker, Co., 18th, cotton planting finished. Talbot, Co., 18th, peach crop diminished about one-half, apples about one-third. Lowndes Co., 18th, early cotton and vegetables damaged some by the recent frost, corn uninjured. Thomas Co., 18th, cotton slightly damaged by frost. Miller Co., 18th, corn crop well advanced for the season; oat crop promises a good yield. Augusta, 21st, farmers planting cotton. *Idaho*—Boise City, in bloom, 2nd, cherry, 3rd, pear, 9th, apple. *Illinois*—Louisville, in bloom, 27th, red-bud; leafing, 27th, forest trees. Cairo, in bloom, 1st, peach. *Indiana*—Vevay, in bloom, 11th, blue flag, flowering almond, japan quince, 22nd, apple, pear, cherry, wild plum, and all flowering shrubs. *Iowa*—Guttenburg, 30th, plowing for corn, all small grain sowed, forest trees very backward in budding. Muscatine, in bloom, 24th, plum, cherry and dandelions; 1st, cherry buds swelling, blue grass looks quite green, wheat all sown. *Kansas*—Independence, in bloom, 10th, apple, 25th, dewberry, 27th, raspberry, 30th, blackberry; 30th, forest trees in leaf, wheat growing rapidly. Topeka, in bloom, 6th, plum, 9th, flowering almond, 10th, pear, 25th, apple. *Louisiana*—Okalooska, 30th, corn three to six inches high. *Maryland*—Queen Anne's County, 24th, peach trees in fine condition. *Massachusetts*—Waltham, in bloom, 14th, hazel, 22nd, skunk-cabbage, 28th, white elm, 29th, willow, 30th, alder, aspen; leafing, 30th, lilac and gooseberry. *Michigan*—Detroit, in bloom, 22nd, red maple, 24th, white poplar, 30th, forsythia; season very backward. Port Huron, 4th, farmers report much damage to winter wheat by the snow and frost which have recently occurred. *Minnesota*—Breckenridge, in bloom, 28th, wild plums; leafing, 22nd, elm and willow; 13th, grass starting; 27th, wheat four inches high. *Mississippi*—Fayette, in bloom, 20th, whortleberry; 30th, crops in good condition. *Missouri*—Springfield, 2nd, potatoes up; 10th, peas up; 22nd, corn up; 30th, wheat in fine condition. St. Louis, 30th, Prof. F. E. Nipher, in the bulletin of the Missouri Weather Service, states that "the wheat crop is generally reported as very promising; fruit, and particularly peaches, considerably injured." *Nebraska*—Omaha, 20th, grain is all sowed and is growing finely; the plowing of corn ground has commenced, and planting in some sections. *New Hampshire*—Contoocookville, in bloom, 27th, trailing arbutus, 30th, elm; 30th, fields beginning to look green, farmers commencing spring work. *New Jersey*—Linden, 22nd, plowing, planting potatoes. *Nevada*—Winnemucca, leafing, 1st, sage brush and shade trees. *New York*—Palermo, in bloom, 24th, spring beauties, 26th, hyacinths, 27th, blood-root, 30th, cowslips; 21st, commenced plowing. *North Carolina*—Fayetteville, in bloom, 9th, dandelions and peas; 9th, radishes for table use. *Ohio*—Norwalk, 30th, wheat looks well, fruit prospect very poor, no corn planted yet, spring very backward. *Pennsylvania*—Fallington, in bloom, 15th, maple, 30th, cherry and wild flowers. Litchfield, 25th, forest trees budding. *Tennessee*—De Kalb County, 19th, wheat crop the largest and finest that has been known in this section for many years, the prospects for all grain crops are reported to be particularly bright throughout the state, in Eastern Tennessee the fruit crop has not been seriously injured by the recent cold weather. *Texas*—Clarksville, 30th, oats and barley very promising; corn and cotton doing well. *Vermont*—West Charlotte, in bloom, 21st, may flowers. *Virginia*—Red Hill, 5th, season very cold and backward, wheat small, winter oats killed, grass, slow growth, some peaches and cherries killed; spring oats and millet mainly saved, but no signs of sprouting, because too cold and dry; but little winter wheat killed; garden peas up for some time, but not growing much. *West Virginia*—Morgantown, in bloom, 6th, apple, 21st, cherry, 22nd, dogwood, 23rd, peach. *Wisconsin*—Madison, in bloom, 19th, sugar maple; leafing, 26th, horse chestnut, sugar maple, mountain ash, elm, lilac.

BIRDS.—*Geese*—Southington, Conn., 3rd; Monticello, Ia., 11th; West Waterville, Me., 2nd; Waltham, Mass., 10th, 15th; Corning, Mo., throughout month; Palermo, N. Y., 8th; Chambersburg, Pa., 16th; West Charlotte, Vt., 13th; Embarrass, Wis., 20th; Ft. Gibson, Ind. Ty., 5th; Bismarck, Dak., 30th; Red Bluff, Cal., 4th; Pembina, Dak., 1st; Oswego, N. Y., 3rd; Cairo, Ill., 7th; Creswell, Kan., 5th; Oregon, Mo., 12th; Brookfield, Mass., 26th; Clear Creek, Neb., 10th; Woodstock, Vt., 13th; Chicago, 10th. *Swallows*—Southington, Conn., 26th; New Corydon, Ind., 28th; Holton, Kan., 11th; Woodstock, Md., 22nd; Cornish, Me., 26th; Waltham, Mass., 23rd; Fayette, Miss., 2nd; Plattsburgh, Neb., 29th; Genoa, Neb., 8th; Waterburg, N. Y., 20th; Palermo, N. Y., 28th; Moorestown, N. J., 23rd; North Volney, N. Y., 10th; Flushing, N. Y., 27th; Norwalk, Ohio, 25th; Catawissa, Pa., 10th; Egypt, Pa., 18th; Litchfield, Pa., 25th; West Charlotte, Vt., 14th; Dover Mines, Va., 29th; Embarrass, Wis., 14th; Wytheville, Va., 9th; New London, Conn., 24th; Great Bend, Kan., 7th; Fall River, Mass., 2nd; Oregon, Mo., 22nd; Contoocookville, N. H., 29th; Jacksonburg, Ohio, 13th; Wautoma, Wis., 21st. *Robins*—West Waterville, Me., 9th; Cornish, Me., 9th; Rowe, Mass., 9th; Genoa, Neb., 8th; Brookville, Pa., 10th; Strafford, Vt., 9th; Ashland, Wis., 10th; Breckenridge, Minn., 4th, 19th; Oswego, N. Y., 1st; New London, Conn., 22nd; Great Bend, Kan., 28th; Creswell, Kan., 17th;

Clear Creek, Neb., 1st; Eastport, Me., 13th. *Martins*—Dover, Del., 9th, 10th, 12th; Cornish, Me., 26th; New Bedford, Mass., 8th; Genoa, Neb., 9th; Palermo, N. Y., 5th; Weldon, N. C., 9th; Brookville, Pa., 10th; Embarrass, Wis., 14th; Leavenworth, Kan., 5th; Burlington, Vt., 23rd; Nora Springs, Iowa, 16th; Oregon, Mo., 6th; Clear Creek, Neb., 1st; Walnut Grove, Va., 27th; Wautoma, Wis., 22nd; Yankton, Dak., 12th. *Blackbirds*—Monticello, Iowa, 5th, 14th, large flocks; Cornish, Me., 12th; Rowe, Mass., 9th; Northport, Mich., 26th; North Volney, N. Y., 7th; West Charlotte, Vt., 7th; Ashland, Wis., 20th; Embarrass, Wis., 10th; Breckenridge, Minn., 4th, 19th; Great Bend, Kan., 4th; Oregon, Mo., 5th. *Cranes*—Monticello, Iowa, 6th; Fayette, Miss., 18th; Corning, Mo., throughout month; Genoa, Neb., 9th; Dover Mines, Va., 11th; Creswell, Kan., 2nd; Oregon, Mo., 2nd; Clear Creek, Neb., 10th. *Meadowlarks*—Monticello, 9th, 16th; Cornish, Me., 24th; Northport, Mich., 19th; Thornville, Mich., 12th; Palermo, N. Y., 11th; North Volney, N. Y., 8th; Embarrass, Wis., 1st; Breckenridge, Minn., 2nd; Oregon, Mo., 16th; Contoocookville, N. H., 26th. *Pigeons*—Monticello, Iowa, 1st, large flocks; Jacksonburg, Ohio, 20th. *Bluebirds*—Cornish, Me., 12th; Rowe, Mass., 9th, 20th; Brookville, Pa., 10th; Atlantic City, N. J., 23rd; Creswell, Kan., 26th; Oregon, Mo., 8th; Wautoma, Wis., 23rd. *Cuckoo*—Fayette, Miss., 13th; Fayetteville, N. C., 21st. *Woodpeckers*—Monticello, Iowa, 2nd; Cornish, Me., 21st; Brookhaven, Miss., 14th; Jacksonburg, Ohio, 26th; Woodstock, Vt., 23rd. *Crows*—Monticello, Iowa, 2nd; Embarrass, Wis., 10th; Breckenridge, Minn., 4th, 19th; Great Bend, Kan., 12th; Brookhaven, Miss., 22nd. *Mockingbirds*—Independence, Kan., 25th; Tabor, Iowa, 27th; Emory Grove, Md., 9th, 15th, 21st; Oregon, Mo., 24th; Starkey, N. Y., 14th. *Bluejays*—Rowe, Mass., 3rd; Great Bend, Kan., 28th; Creswell, Kan., 26th. *Bittern*—Great Bend, Kan., 25th. *Brants*—Ft. Madison, Iowa, 30th; Holton, Kan., 19th; Corning, Mo., throughout month; Clear Creek, Neb., 10. *Nighthawks*—Palermo, N. Y., 6th; Great Bend, Kan., 28th; Oregon, Mo., 22nd. *Birds of Paradise*—Uvalde, Tex., 14th. *Hummingbirds*—Fayetteville, N. C., 21st; Ringgold, Ohio, 23rd. *Quail*—Monticello, Iowa, 22nd; Brookhaven, Miss., 20th. *Owls*—Oregon, Mo., 1st. *Orioles*—Cornish, Me., 28th; Fallston, Md., 30th; Fayette, Miss., 15th; Oregon, Mo., 25th; Walnut Grove, Va., 27th. *Sparrows*—Rowe, Mass., 11th, 13th, 16th; Waltham, Mass., 16th; Ringgold, Ohio, 1st; West Charlotte, Vt., 7th; New London, Conn., 22nd; Great Bend, Kan., 2nd; Contoocookville, N. H., 10th. *Ducks*—Monticello, Iowa, 7th; Northport, Mich., 13th; Corning, Mo., throughout month; West Charlotte, Vt., 9th; Embarrass, Wis., 6th; Pembina, Dak., 5th. *Pelicans*—Corning, Mo., throughout month. *Swans*—Corning, Mo., throughout month; Genoa, Neb., 11th.

MISCELLANEOUS.—*Potatoe bugs*—Vevay, Ind., 30th, in large numbers. *Lizards*—Monticello, Iowa, 1st; Dover Mines, Va., 9th. *Ground squirrels*—Monticello, Iowa, 16th. *Snakes*—Dover Mines, Va., 20th; Oregon, Mo., 20th; Clear Creek, Neb., 26th. *Honeybees*—Embarrass, Wis., 5th; Uvalde, Tex., 27th, swarming. *Butterflies*—Monticello, Iowa, 13th; New Bedford, Mass., 30th; Weldon, N. C., 25th; Embarrass, Wis., 5th; Breckenridge, Minn., 23rd; New London, Conn., 21st. *House flies*—Monticello, Iowa, 10th; Breckenridge, Minn., 7th; Creswell, Kan., 16th. *Humblebees*—Dover Mines, Va., 13th; Embarrass, Wis., 22nd; Oregon, Mo., 21st. *Grasshoppers*—Monticello, Iowa, 19th; Chattanooga, Tenn., 19th, in large numbers, apparently brought by the recent high SW. winds; Yankton, Dak., 11th, first appeared.

FISH.—*Shad*—Ardenia, N. Y., 21st, first caught.

Meteors.—Santa Fé, N. M., 17th, large numbers, making a brilliant display. Anna, Ill., 17th, 8:40 p. m., path NE. to SW. Vevay, Ind., 1st. Topcka, Kan., 18th, 8:30 p. m., very brilliant meteor, passing from E. to W., altitude about 30°; 24th, 10:30 p. m., passed from SW. to NE., burst when about 20° below Castor and Pollux. New London and Spirit Lake, Iowa, 9th, very brilliant meteor, "apparently descending in southeastern Wisconsin." Fort Dodge, Iowa, 1st. Woodstock, Md., 6th, 19th, 21st, 22nd. Thornville, Mich., 20th. Brookhaven, Miss., 12th. Fayette, Miss., 19th, 26th, 29th. Corning, Mo., 24th. Atco, N. J., 3rd, elevation 30°, path NE. to SW. Freehold, N. J., 19th. Princeton, N. J., 10th, 11 p. m., moving SSE. near horizon. Waterburg, N. Y., 12th. Starkey, N. Y., 20th. Weldon, N. C., 13th, 9 p. m., 30° NE. of zenith. Fallsington, Pa., 26th. Morgantown, W. Va., 12th, 9:55 p. m., very brilliant meteor, about 5° above horizon, passing from NE. to SW., disappeared within 1° of horizon. Louisville, Ky., 11th, 8:30 p. m., moving from NE. to NW.

Polar Bands.—New Corydon, Ind., 7th, 9th, 19th, 28th. Guttenburg, Iowa, 8th. Gardiner, Me., 1st, 17th. Fayette, Miss., 30th. Freehold, N. J., 16th. Wytheville, Va., 2nd, 15th. Bismarck, 28th.

Prairie and Forest Fires.—Stevensville, Mich., 25th, woods all on fire, one house burned. Bridgeman, Mich., 25th, all the available force are out fighting forest fires, which threaten great destruction. Pike's Peak, 19th. Fort Gibson, Ind. T., 4th, extensive, 5th, 11th. Bismarck, 7th, extensive. Yankton, 1st, 3rd, 4th, 10th, 11th, 12th, 13th, 27th, 28th. Pembina, 11th, 13th, 17th. Cape Hatteras, 20th to 30th. Afton, Iowa, 5th. Fort Dodge, Iowa, frequent during month. Creswell, Kan., 1st, 2nd, 4th, 12th, 14th to 19th, 25th, 26th, 28th. Independence, Kan., 1st to 29th. Genoa, Neb., 16th. Wytheville, Va., 2nd, 3rd, 13th, 22nd, 23rd, 26th, 27th. Embarrass, Wis., 21st. Wautoma, Wis., 18th to 24th.

Mirage.—Duluth, 15th, 17th. Newport, R. I., 2nd. Olivet, Dak., 1st, 16th, 19th. Great Bend, Kan., 19th. Frankfort, Mich., 20th.

Zodiacal Light.—Colorado Springs, Col., looked for, but not observed, on 1st to 6th, 8th to 27th; no observations on the 7th, 27th to 30th. Pike's Peak, looked for, but not observed, from 1st to 30th. Southington, Conn., 12th, 14th, 20th, 21st, 23rd. Iowa City, Iowa, observed on six evenings. Cambridge, Mass., regularly looked for at 8 p. m.; observed on the 8th, 12th, 14th, 20th; suspected, 21st, 22nd; hindered by clouds or moon-light, 1st to 7th, 9th to 11th, 13th, 15th to 20th, 23rd to 30th. Fall River, Mass., 21st,

23rd. Rowe, Mass., 8th, 20th. Contoocookville, N. H., 7th, 12th, 14th. Atco, N. J., 12th, 20th, 22nd. Waterburg, N. Y., 22nd, 23rd. Palermo, N. Y., 1st, 8th, 12th. Wytheville, Va., 4th, 12th, 13th, 18th, 19th, 20th, 21st, 22nd. Mt. Washington, regularly looked for from 1st to 30th, but not observed.

Earthquakes.—November, 1878, Unalaska Island, Alaska, 12th, at 2.30 a. m., slight shock reported; March, 1879—U. S. Naval Hospital, Yokohama, Japan, 4th, 4.44 p. m., shock lasting 45 seconds, 7 p. m., shock lasting 20 seconds; 10th, 4.35 p. m., shock lasting 50 seconds; 16th, 9.32 p. m., shock; 18th, 9.49 a. m., light shock. On March 22nd, at 12.35 p. m., an earthquake occurred in northwestern Persia, "taking a direction" from Tabreez to Zerdjan and Mianeh; at the latter place (situated in lat. 37° 27' N., long. 47° 43' E.) several strongly built houses were thrown down, while the villages of Tark and Manan were totally destroyed, with a reported loss of about 1,100 lives. April—San Jose, Costa-Rica, 3rd, 11.25 a. m., feeble shock; 4th, 11.44 a. m., two strong shocks, with an interval of 5 to 7 seconds; 9th, 11.15 a. m., somewhat strong shock lasting about 20 seconds, 11.34 a. m., more feeble shock. Puntarenas, Costa Rica, 4th, 2 p. m., strong shock. Alajuela, Costa Rica, 9th, 11.07 and 11.25 a. m., shocks were felt.

Sunsets.—The characteristics of the sky at sunset, as indicative of fair or foul weather, for the succeeding twenty-four hours, have been observed at all Signal Corps stations. Reports from 131 stations show, 3,894 observations to have been made, of which 49 were reported doubtful; of the remainder, 3288 or 85.5 per cent were followed by the expected weather.

Sun Spots.—The following record of observations, made by D. P. Todd, Assistant, has been forwarded by Prof. S. Newcomb, U. S. Navy, Superintendent Nautical Almanac, Washington, D. C.:

DATE— APRIL, 1879.	No. of new—		Disappeared by solar rotation.		Reappeared by solar rotation.		Total number visible.		REMARKS.
	Groups	Spots.	Groups	Spots.	Groups	Spots.	Groups	Spots.	
11th, 2 p. m.	1	3	0	0	1	3	1	3	Faculae..... Faculae..... Faculae..... Many of the spots small..... Observations were also taken on the 1st, 2nd, 3rd, 8th, 9th, 25th, 26th, 27th, 28th and 29th, at 2, 3 or 4 p. m., but not any spots were seen.
12th, 2 p. m.	0	0	0	0	0	0	1	3	
5 p. m.	0	0	0	0	0	0	1	3	
16th, 2 p. m.	0	11	0	0	0	0	1	14	
21st, 4 p. m.	0	0	0	0	0	0	1	1	
22nd, 4 p. m.	0	0	0	0	0	0	1	1	
23rd, 2 p. m.	0	0	0	0	0	0	1	1	
24th, 2 p. m.	0	0	1	1	0	0	0	0	

Mr. John W. James, Riley, Ill., examined the sun on the 13th, and found near its southeast margin a large spot; 15th, one group of four large spots, extremely irregular; 19th, three spots of previous group disappeared, leaving a large one, estimated at 11,600 miles in diameter. Mr. William Dawson, Spiceland, Ind., examined the sun on the 2nd, 5th, 6th, 7th, 24th, 26th, 28th, 29th, 30th, and observed no spots; 11th, five small spots and prominent faculae, all together, near the east edge of the sun's disc; 12th, sixteen spots in one group, faculae not so prominent; 13th, nine spots, one group, several of the spots seen on the 12th appeared to be united, forming one large spot; 16th, twenty-five spots, one group, three spots very prominent, seven others not quite so, atmosphere very poor; 18th, two large spots, close together, nearly south of the centre and about one-third the way from the centre to the south edge of the sun's disc; 20th, seven spots, one group, one spot visible with small opera-glass; 21st, 22nd, 23rd, one spot on each day. Prof. Gustavus Hinrichs, Iowa City, Iowa, reports having observed one group of two very large and several small spots from the 12th to the 22nd. Mr. F. Hess, Fort Dodge, Iowa, examined the sun from the 12th to the 22nd, observing spots. Mr. David Trowbridge, Waterburg, N. Y., examined the sun on the 1st, 6th, 8th, 11th, 24th, 26th, 29th, observed no spots; 12th, one spot near eastern edge of sun's disc, evidently brought into view by rotation; 14th, one group of four spots; 16th, group still visible, one large spot and three smaller ones; 19th, one large spot, well defined; 20th, spot seems to be smaller; 22nd, same spot still visible; 23rd, observation obstructed by clouds. Mr. H. D. Gowey, North Lewisburg, Ohio, examined the sun as follows: 16th, two spots near eastern edge of sun's disc; 18th, one spot; 19th, one spot; 21st, one spot; 22nd, one large spot, well defined, near west limb of sun; 23rd, disappeared by solar rotation.

U. S. Signal Corps Telegraph Lines.—The following letter explains itself:

CAPE HENRY, VA., April 6, 1879.

To the Chief Signal Officer of the Army, Washington, D. C.

SIR: Enclosed herewith I have the honor to forward copies of telegrams sent and received during the wreck of Schooner "James M. Vance," which ran ashore two miles north of this station on March 31st, 1879. * * * * * Captain and crew numbered six in all. The vessel struck at 9:50 a. m., heading directly for the beach, swinging around broadside to the shore, in which position she remained, near high water mark. * * * * * A severe gale from the north prevailed during the night, when she lost both anchors and chains and jib and foreboom. The schooner was first observed by the sergeant in charge about 8:30 a. m., 15 or 18 miles from shore; as soon as she struck Private Paxton was sent to open wreck station abreast of vessel, and Life-saving Crew No. 1 notified by telephone. Wreck station was opened within thirty minutes. The telephone was used with success in notifying Life-saving Crew, consuming not more than one minute of time. The captain of schooner and crew were landed safely by Life-saving Crew No. 1. Vessel will prove total loss.

Very respectfully, your obedient servant,

J. H. BOKEL,
Sergeant, Signal Corps, U. S. A.